

## Listing of Claims

### IN THE CLAIMS:

The following listing of claims is intended to supercede all previously filed listings of claims. Changes are shown with deletions in ~~striketrough~~ and additions underlined.

**Claim 1 (Currently Amended).** A cable seal configured to seal a cable against fluid passage in an environment wherein a pressure differential exists between a first region of the environment and a second region of the environment, including:

a ~~bonding layer formed substantially directly on the cable~~ metal-plated optical fiber; and  
a bonding agent disposed on the ~~bonding layer~~ metal-plated optical fiber and configured to seal a portion of the cable against passage of fluids.

**Claim 2 (Cancelled).**

**Claim 3 (Currently Amended).** The cable seal of claim 2, wherein the ~~metallized layer~~ includes optical fiber is plated with at least one of chromium, nickel and gold.

**Claim 4 (Original).** The cable seal of claim 1, wherein the bonding agent includes epoxy.

**Claim 5 (Currently Amended).** The cable seal of claim 4, wherein the epoxy is bonded to the ~~bonding layer~~ metal-plated optical fiber.

**Claim 6 (Original).** The cable seal of claim 1, wherein the cable includes a plurality of optical fibers.

**Claim 7 (Original).** The cable seal of claim 6, wherein the optical fibers are formed from silica.

**Claim 8 (Currently Amended).** The cable seal of claim 1, wherein the first region has a pressure lower than a pressure of the second region.

**Claim 9 (Currently Amended).** A method for forming a seal on a cable having a core material, including the steps of:

removing an amount of an overlayer on the core material sufficient to expose a surface to which a bonding layer may be applied;

~~applying a bonding layer to~~ plating the exposed surface with a metal to form a metal-plated surface;

applying a bonding agent to at least a portion of the ~~bonding agent~~ metal after the metal has been plated on to the exposed surface.

**Claim 10 (Cancelled).**

**Claim 11 (Currently Amended).** The method of claim 9, wherein the step of ~~applying a bonding layer~~ plating the exposed surface includes applying a layer including at least one of chromium, nickel and gold.

**Claim 12 (Currently Amended).** The method of claim 9, wherein the step of applying a bonding agent includes the step of applying epoxy to the ~~bonding layer~~ metal-plated surface.

**Claim 13 (Currently Amended).** The method of claim 9, wherein:  
the cable includes a plurality of optical fibers, each having a silica core; and  
the step of ~~applying a bonding layer~~ plating the exposed surface includes the step of applying a ~~metallized layer including~~ at least one of chromium, nickel and gold to each silica core in the cable.

**Claim 14 (Currently Amended).** The method of claim 13, wherein the step of applying a bonding agent includes the steps of:

placing a region of the cable in a mold; and  
applying epoxy to the region for sufficient time to bond the epoxy to at least a portion of the metal-plated surface~~metallized layer~~.

**Claim 15 (Currently Amended).** An optical fiber cable, including:

a plurality of optical fibers each having a silica core, the cable having a first region wherein at least some of the optical fibers have substantially no coating, and having a third region wherein at least some of the optical fibers have a second coating;

a ~~bonding layer~~ metal-plating applied to at least a portion of the second region;

an epoxy seal bonded to the ~~bonding layer~~ metal plating of at least some of the optical fibers in the second region and extending partly into the first region and partly into the second region.

**Claim 16 (Original).** The optical fiber cable of claim 15, further including:

a first conductive tube surrounding at least a portion of the first region; a second conductive tube surrounding at least a portion of the third region; and

a conductive housing surrounding at least a portion of the second region, including the epoxy seal;

wherein the first conductive tube, second conductive tube and conductive housing form a continuous conductive path.

**Claim 17 (Original).** The optical fiber cable of claim 16, further including an insulating sleeve over each of the first conductive tube, second conductive tube and conductive housing.

**Claim 18 (Original).** The optical fiber cable of claim 17, wherein the insulating sleeve includes polyethylene.

**Claim 19 (Currently Amended).** A system for transmission of data between a first environment having a low relative pressure and a second environment having a high relative

pressure, including:

a communications cable including a plurality of optical fibers each having a silica core, the cable having a first region wherein at least some of the optical fibers ~~including~~ have a first coating, having a second region wherein at least some of the optical fibers have substantially no coating, and having a third region wherein at least some of the optical fibers have a second coating;

a ~~bonding layer~~ metal plating applied to at least a portion of the second region;

an epoxy seal bonded to the ~~bonding layer~~ metal plating of at least some of the optical fibers in the second region and extending partly into the first region and partly into the second region; and

at least one electronics module positioned within the first environment and coupled to a portion of the optical fibers in the first region.

**Claim 20 (Original).** The transmission system of claim 19, further including:

a first conductive tube surrounding at least a portion of the first region;

a second conductive tube surrounding at least a portion of the third region; and

a conductive housing surrounding at least a portion of the second region, including the epoxy seal;

wherein the first conductive tube, second conductive tube and conductive housing form a continuous conductive path.

**Claim 21 (Currently Amended).** The transmission system of claim ~~20~~19, further including a sleeve over each of the first conductive tube, second conductive tube and conductive housing.

**Claim 22 (Currently Amended).** The transmission system of claim ~~21~~19, wherein the sleeve includes polyethylene.

**Claim 23 (New).** The cable seal of claim 1, wherein a metal is applied to the optical fiber using chemical vapor deposition to produce the metal-plated optical fiber.

**Claim 24 (New).** The method of claim 9, wherein the step of plating the exposed surface with a metal to form a metal-plated surface includes plating the exposed surface using a chemical vapor deposition process.